



## **STATEMENT OF BASIS**

Holcim [US], Inc. Theodore, Alabama Mobile County Facility No. 503-8026

This proposed Title V Major Source Operating Permit (MSOP) renewal is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

The existing MSOP was issued on December 4, 2006, with an expiration date of October 24, 2010. Per ADEM Rule 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of the permit. Based on this rule, application for renewal was due to the Department no later than April 24, 2010, but no earlier than April 24, 2009. The renewal application was received by the Department on April 14, 2010. No additional information was deemed necessary for processing of this MSOP. The proposed renewal MSOP will expire on **TBD**.

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The following events, which have occurred since the last renewal permit was issued on December 4, 2006, have been incorporated:

**May 31, 2007**: The Department received air permit application forms for the proposed construction of a 15 TPH plastic shredder as well as the proposed removal of the building enclosing the existing 2.5 TPH plastic shredder. Calculated emissions from the proposed project were considered to be insignificant. A letter of non-applicability was issued by the Department on June 19, 2007.

**August 23, 2007**: The Department received air permit application forms for the proposed construction of an 18,000 gallon used oil storage tank. Due to malfunctions within the agitation system associated with the existing 18,000 gallon used oil storage tank, the facility installed an identical 18,000 gallon storage tank while repairs were performed on the existing tank. Calculated emissions from the proposed project were considered to be insignificant. A letter of non-applicability was issued by the Department on September 5, 2007.

*May 6, 2008*: The Department received air permit application forms for the proposed construction of a new 15 TPH shedder with an associated 6,500 acfm baghouse. The existing 2.5 TPH and 15 TPH shredders, which were rentals, were removed. Calculated emissions from the proposed project were considered to be insignificant. A letter of non-applicability was issued by the Department on July 2, 2008.

**April 28, 2009**: Amendments to 40 CFR 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" were published in the federal register.

*May 22, 2009*: The Department received air permit application forms for a proposed GranCem handling process. Ground blast furnace slag is shipped via truck from the existing Holcim facility in Birmingham, AL, to the facility in Theodore, AL. Upon arrival, it is mixed with Portland cement produced on-site and stored in an existing silo prior to being loaded onto barges for delivery. Calculated emissions from the proposed project were considered to be insignificant. A letter of non-applicability was issued by the Department on May 28, 2009.

**August 18, 2009**: The Department received a letter requesting a modification of existing Major Source Operating Permit No. 503-8026. According to the correspondence received, an internal audit of permitting records revealed that four emissions sources located within Area 95 were inadvertently omitted by the Department from the renewal MSOP [issued on December 4, 2006]. In accordance with ADEM Administrative Code r. 335-3-16-.13[1][a]1, the MSOP was administratively amended on August 31, 2009, in order to include the missing sources.

**October 8, 2009**: Amendments to 40 CFR 60, Subpart Y, "Standards of Performance for Coal Preparation and Processing Plants" were published in the federal register.

**November 12, 2009**: Holcim submitted an application for proposed modifications to the existing preheater, clinker cooler, and kiln baghouse. The proposed modifications would be performed in order to increase overall energy efficiency. Calculated net emissions from the proposed modifications were considered to be insignificant. A letter of non-applicability was issued by the Department on December 18, 2009.

**December 7, 2009**: Holcim submitted an application for the proposed construction of a bottom ash and sand feed system which would allow the facility to feed ash and sand directly into the existing raw mill. Although potential emissions from the proposed project were minimal, it was subject to the applicable provisions of 40 CFR 63, Subpart LLL. On February 11, 2010, the Department issued Air Permit No. 503-8026-X025 for the proposed project.

**February 17, 2010**: The Department received a request to incorporate the use of BD Heavies as an alternative fuel in the cement kiln system. Since the facility was able to utilize existing fuel delivery equipment, no physical modifications were necessary in order to accommodate the fuel. On March 8, 2010, the Department issued a letter stating that the proposed project would be considered a section 502(b)(10) change to the MSOP in accordance with ADEM Administrative Code r. 335-3-16-.13.

*May 25, 2010*: The Department received air permit application forms for the proposed construction of a new heated non-hazardous fuel system consisting of two [2] new 27,000 gallon storage tanks, a 1.5 MMBtu/hr propane fired heater, and associated piping and pumping equipment to store and deliver two types of permitted fuels: *BD Heavies* and used oil. Calculated emissions from the proposed project were considered to be insignificant. A letter of non-applicability was issued by the Department on June 16, 2010.

**September 9, 2010**: Amendments to 40 CFR 60, Subpart F, "Standards of Performance for Portland Cement Plants" and 40 CFR 63, Subpart LLL, "National Emissions Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry" published in the federal register.

*January 18, 2011:* Revisions to ADEM Administrative Code r. 335-3, "Air Pollution Control Program" became effective.

**February 21, 2011**: 40 CFR 60, Subpart CCCC, "Commercial and industrial Solid Waste Incineration Units" was promulgated. However, the final version has not been published in the Federal Register.

# **PROCESS DESCRIPTIONS**

The Holcim Plant, located in Theodore, Alabama, is an existing Portland cement manufacturing facility. The facility is comprised of the following sources:

Area 19	Raw Material Unloading
Area 24	Raw Material Handling and Storage
Area 26	Raw Mill and Raw Mill Silos
Area 28	Kiln Feed Blending and Conveying
Area 29	Kiln , Clinker Cooler, and Rotary Dryers
Area 34	Clinker Conveying
Area 35	Clinker Handling and Storage
Area 41	Finish Mills
Area 51	Land Silos and Loadout
Area 53	Marine Silos and Loadout
Area 95	Coal Processing

Each area is discussed in detail in the following sections.

The Theodore Plant does not operate an on-site quarry. All raw materials utilized at this facility arrive by barge, ship, or truck from multiple off-site locations. Raw materials utilized at this facility consist of, but are not limited to, the following: calcium sources, silica sources, alumina sources and iron ore sources.

Upon arrival, raw materials are mechanically unloaded by gantry crane and transported through the tower area to either the raw material storage area or the twin rotary dryers. The materials handling system includes a complex system of conveyor belts, drop points, unloading equipment, feed hoppers, apron feeders, scrapers, and other equipment. Movement of materials is based upon production levels and requirements existing at the plant.

Area 19 is comprised of the following sources:

Source	Area	Source Description	Control	Emission Point
S-19-01	Dock	Drop from Gantry Unloader Clam Shell (East and West) to Dock	Uncontrolled	FUG
S-19-02	Dock	Drop from Gantry Unloader Clam Shell (East and West) to Feed Hopper	Uncontrolled	FUG
S-19-03	Dock	Drop from Feed Hopper to East Apron Feed Belt	Baghouse	P-19-01
S-19-04	Dock	Drop from East Apron Feed Belt to East Limestone Belt	Baghouse	P-19-01
S-19-05	Tower No. 1	Drop from East and Main Limestone Belt to Limestone Stacker Belt	Uncontrolled	FUG
S-19-06	Dock	Drop from East Apron Feed Belt to Main Limestone Belt	Baghouse	P-19-01
S-19-07	Dock	Drop from East Apron Feed Belt to West Limestone Belt	Baghouse	P-19-01
S-19-08	Tower No. 2	Drop from West Limestone Belt to South Coal/Gypsum Transfer Belt	Baghouse	P-19-02
S-19-09	Dock	Drop from East Apron Feed Belt to West Coal/Gypsum Transfer Belt	Baghouse	P-19-01
S-19-10	Tower No. 2	Drop from West Coal/Gypsum Transfer Belt to South Coal/Gypsum Transfer Belt	Baghouse	P-19-02
S-19-11	Dock	Drop from West Gantry Feed Hopper to West Apron Feed Belt	Baghouse	P-19-03
S-19-12	Dock	Drop from West Apron Feed Belt to Main Limestone Belt	Baghouse	P-19-03

Source	Area	Source Description	Control	Emission Point
S-19-13	Dock	Drop from West Apron Feed Belt to West Coal/Gypsum Transfer Belt	Baghouse	P-19-03
S-19-14	Dock	Drop from West Apron Feed Belt to West Limestone Belt	Baghouse	P-19-03
S-19-15	Dock	Drop from West Apron Feed Belt to East Limestone Belt	Baghouse	P-19-03
S-19-16	Sand Storage	Sand Pile	Uncontrolled	FUG
S-19-17	Bottom Ash Storage	Bottom Ash Pile	Uncontrolled	FUG
S-19-18	Top of Bottom Ash Pile	Drop from Gantry Clam Shell Unloader (West) to No. 1 and No. 2 Bottom Ash Feeder	Uncontrolled	FUG
S-19-19	Top of Bottom Ash Pile	Drop from No.1 and No.2 Clay Feeder to Clay Belt No.1 and No.2	Uncontrolled	FUG
S-19-20	Top of Sand Pile	Drop from Gantry Clam Shell Unloader (East) to No.1 and No.2 Sand Feeder	Uncontrolled	FUG

This area is part of the raw materials handling stage of the process. The materials handling system includes a complex system of conveyor belts, drop points, unloading equipment, feed hoppers, apron feeders, scrapers, and other equipment. Movement of materials is based upon production levels and requirements existing at the plant.

Area 24 is comprised of the following sources:

Source	Area	Source Description	Control	Emission Point
S-24-01	Limestone Belt	Drop from Limestone Belt and Apron Feeder No. 1 and No. 2 to Dryer Feed Belt No. 1 and No. 2	Uncontrolled	FUG
S-24-02	South End of Limestone Stacker Belt	Drop from Vulcan Ship Unloader to Hopper on Limestone Stacker Belt	Uncontrolled	FUG
S-24-03	South End of Limestone Stacker Belt	Hopper on Limestone Stacker Belt to Limestone Stacker Belt	Uncontrolled	FUG
S-24-04	Limestone Stacker	Drop from Limestone Stacker Belt to Limestone Stacker	Uncontrolled	FUG
S-24-05	Active Limestone Storage Pile	Active Limestone Storage Pile	Uncontrolled	FUG
S-24-06	Reserve Limestone Storage Pile	Reserve Limestone Storage Pile	Uncontrolled	FUG
S-24-07	North East Side of Active Limestone Storage Pile	Drop to Limestone Reclaimer Belt	Uncontrolled	FUG
S-24-08	North East Corner of Active Limestone Storage Pile	Drop from Front-End Loader to North Limestone Hopper/Apron Feeder	Uncontrolled	FUG
S-24-09	Tower No. 8 and South West Corner of Reserve Pile	Drop to Limestone Feed Belt	Uncontrolled	FUG

Source	Area	Source Description	Control	Emission Point
S-24-10	South West Corner of Reserve Limestone Storage Pile	Drop from Front-End Loader to South Limestone Hopper/Apron Feeder	Uncontrolled	FUG
S-24-11	Limestone Splitter Tower	Drop to Apron Feeder No. 1 and No. 2	Uncontrolled	FUG
S-24-12	Tower No. 10	Drop from Dryer No. 1 and No. 2 Feed Belt "A1" and "A2" to Dryer No. 1 and No. 2 Feed Belt "B1" and "B2"	Uncontrolled	FUG
S-24-13	Tower No. 4	Drop from Coal, Iron Ore, Gypsum, Clinker South Belt to Three-Way Diverter Chute	Baghouse	P-24-01
S-24-14	Tower No. 4	Drop from Three-Way Diverter Chute to No. 2 Clinker Belt	Baghouse	P-24-01
S-24-15	Tower No. 4	Drop from Three-Way Diverter Chute to Shuttle Feed Belt	Baghouse	P-24-01
S-24-16	Top Center of Coal/Gypsum/I ron Ore Storage Shelter	Drop from Shuttle Feed Belt to Shuttle Belt	Uncontrolled	FUG
S-24-17	Gypsum Storage	Gypsum Storage	Uncontrolled	FUG
S-24-18	Iron Ore Storage	Iron Ore Storage	Uncontrolled	FUG
S-24-19	Coal Storage	Coal Storage	Uncontrolled	FUG
S-24-20	Near Coal and Iron Ore Storage	Drop from Front-End Loader to Belt Feeder	Uncontrolled	FUG
S-24-21	Near Coal and Iron Ore Storage	Drop from Belt Feeder and Gypsum/Iron Ore/Coal Conveyor to Coal/Iron Ore Transfer No. 3 Belt	Uncontrolled	FUG
S-24-22	Tower No. 4	Drop from Three-Way Diverter Chute to Gypsum/Iron Ore/Coal Conveyor	Baghouse	P-24-02
S-24-23	Tower No. 3	Drop from Masonry Rock Belt to Gypsum/Iron Ore/Coal Conveyor	Baghouse	P-24-03
S-24-24	Tower No. 5	Drop from Gypsum/Iron Ore/Coal Conveyor to Gypsum Silo Belt	Baghouse	P-24-04

Source	Area	Source Description	Control	Emission Point
S-24-25	Near Gypsum Storage Pile	Drop from Front-End Loader to Belt Feeder	Uncontrolled	FUG
S-24-26	Near Gypsum Storage Pile	Drop from Belt Feeder to Gypsum Silo Silo Belt	Uncontrolled	FUG
S-24-27	Coal/Iron Ore Tower	Drop from Coal/Iron Ore Transfer No. 3 Belt to two-way Diverter	Uncontrolled	FUG
S-24-28	Tower Adjacent to the South Side of the Raw Silos	Drop from Two-Way Diverter to Bucket Elevator	Uncontrolled	FUG
S-24-29	Tower Adjacent to the South Side of the Raw Silos	Drop from Two-Way Diverter to Coal Belt	Uncontrolled	FUG
S-24-30	Just North of Gypsum Hopper	Drop from Front-End Loader to Belt Feeder	Uncontrolled	FUG
S-24-31	Old Tower No. 11	Drop from Belt Feeder to Feed Chute	Baghouse	P-24-05
S-24-32	Old Tower No. 11	Reclaim Crusher	Baghouse	P-24-05
S-24-33	Old Tower No. 11	Vibrating Screen	Baghouse	P-24-05
S-24-34	Old Tower No. 11	Drop from Belt 4-22 to Belt 4-19	Baghouse	P-24-05
S-24-35	Old Tower No. 11	Drop from Belt 4-20 to Belt 4-19	Baghouse	P-24-05
S-24-36	Old Tower No. 6	Drop from Belt 4-19 to Clinker Storage Shed	Baghouse	P-24-05
S-24-37	East Side of Clinker Silos	Slag Stockpile	Uncontrolled	FUG

Raw materials exiting the twin rotary dryers (Area 29) enter the raw mill system where they are proportioned, ground, and mixed together. The milling process is accomplished with a ball mill, hydraulic roll crusher, and related equipment. The resulting mixture, milled according to proper specifications, is then fed into storage and blending silos.

Area 26 is comprised of the following sources:

Source	Location	Source Description	Control	Emission Point
S-26-01	Dryer No. 1	Drop from Dryer No. 1 Feed Belt (B-1) to Dryer No. 1 Apron Feeder	Baghouse	P-26-01
S-26-02	Dryer No. 1	Drop from Apron Feeder Belt to Apron Feeder Discharge Chute	Baghouse	P-26-02
S-26-03	Dryer No. 1	Vibrating Screen No. 1	Baghouse	P-26-02
S-26-04	Dryer No. 1	Cone Crusher No. 1	Baghouse	P-26-02
S-26-05	Dryer No. 1	Drop from Cone Crusher No. 1 to Bucket Elevator	Baghouse	P-26-02
S-26-06	Dryer No. 1	Bucket Elevator	Baghouse	P-26-02
S-26-07	Dryer No. 1	Drop from Bucket Elevator to Raw Silo Conveyor	Baghouse	P-26-01
S-26-08	Dryer No. 2	Drop from Dryer No. 2 Feed Belt (B-2) to Dryer No. 2 Apron Feeder	Baghouse	P-26-03
S-26-09	Dryer No. 2	Drop from Apron Feeder Belt to Apron Feeder Discharge Chute	Baghouse	P-26-04
S-26-10	Dryer No. 2	Vibrating Screen No. 2	Baghouse	P-26-04
S-26-11	Dryer No. 2	Cone Crusher No. 2	Baghouse	P-26-04
S-26-12	Dryer No. 2	Drop from Cone Crusher No. 2 to Bucket Elevator	Baghouse	P-26-04
S-26-13	Dryer No. 2	Bucket Elevator	Baghouse	P-26-04
S-26-14	Dryer No. 2	Drop from Bucket Elevator to Raw Silo Conveyor	Baghouse	P-26-03
S-26-15	Building on top of Raw Silo No.1	Drop from Raw Silo Conveyor to the Airslide Distributor	Uncontrolled	FUG

Source	Location	Source Description	Control	Emission Point
			Baghouse	P-26-05
S-26-16	Raw Silo No. 1	Drop from Pneumatic Pipe to Raw Silo No. 1	Baghouse	P-26-06
	_		Baghouse	P-26-07
			Baghouse	P-26-05
S-26-17	Raw Silo No. 2	Drop from Pneumatic Pipe to Raw Silo No. 2	Baghouse	P-26-06
	_		Baghouse	P-26-07
			Baghouse	P-26-05
S-26-18	Raw Silo No. 4	Drop from Pneumatic Pipe to Raw Silo No. 4	Baghouse	P-26-06
	•		Baghouse	P-26-07
			Baghouse	P-26-05
S-26-19	Raw Silo No. 5	Drop from Pneumatic Pipe to Raw Silo No. 5	Baghouse	P-26-06
	3		Baghouse	P-26-07
S-26-20	Top of Raw Silo No. 3	Drop from Pneumatic Pipe to Belt 7-31	Uncontrolled	FUG
			Baghouse	P-26-05
S-26-21	Raw Silo No. 3	Drop from Belt No. 7-31 to Raw Silo No. 3	Baghouse	P-26-06
		Baghouse	P-26-07	
			Baghouse	P-26-05
S-26-22	Raw Silo No. 6	Drop from Pneumatic Pipe to Raw Silo No. 6	Baghouse	P-26-06
	-		Baghouse	P-26-07
S-26-23	Interstitial Raw Silo No. 7	Drop from Elevator 7-11 to Belt 7-12	Uncontrolled	FUG
S-26-24	Interstitial Raw Silo No. 7	Drop from Elevator 7-12 to Belt 7-13	Uncontrolled	FUG
S-26-25	Interstitial Raw Silo No. 7	Drop from Elevator 7-13 to Interstitial Raw Silo No. 8	Uncontrolled	FUG
S-26-26	Interstitial Raw Silo No. 8	Drop from Elevator 7-13 to Interstitial Raw Silo No. 7	Uncontrolled	FUG

Source	Location	Source Description	Control	Emission Point
S-26-27	Under Raw Silo No. 1	Drop from Raw Silo No. 1 to screw conveyor (leading to the blending silos)	Uncontrolled	FUG
S-26-28	Raw Silo No. 2	Drop from Raw Silo No. 2 Weighbelt Feeder to Conveyor Belt	Baghouse	P-26-08
S-26-29	Under Raw Silo No. 8	Drop from Raw Silo No. 8 Weighbelt Feeder to Conveyor Belt	Uncontrolled	FUG
	Raw Silo No. 3	Raw Silo No. 3 Weigh Feeder	Baghouse	P-26-09
S-26-30	Raw Silos No. 1, No. 2, and No. 3	Drop from Raw Silos No. 1, No. 2 and No. 3 to Belt 8-45	Baghouse	P-26-13
S-26-31	Raw Silo No.	Dron from Bolt No. 9 45 to Bolt No. 9 40	Baghouse	P-26-10
3-20-31	3	Drop from Belt No. 8-45 to Belt No. 8-49	Baghouse	P-26-12
S-26-32	Raw Silo No.	Drop from Raw Silo No. 3 to Conveyor Belt	Baghouse	P-26-10
3-20-32	3	leading to Finish Silos	Baghouse	P-26-12
C 2C 22	Raw Silo No.	Drop from Raw Silo No. 3 Weighbelt Feeder to	Baghouse	P-26-10
S-26-33	3	Conveyor Belt	Baghouse	P-26-12
S-26-34	Raw Silo No. 4	Raw Silo No. 4 Weigh Feeder	Baghouse	P-26-10
S-26-35	Under Raw Silo No. 5	Drop from Raw Silo No. 7 Weighbelt Feeder to Conveyor Belt	Uncontrolled	FUG
S-26-36	Raw Silo No. 5	Drop from Raw Silo No. 5 Weighbelt Feeder to Conveyor Belt	Baghouse	P-26-12
S-26- 37a	Raw Silo No. 6	Drop from Belt No. 8-47 to Belt No. 8-49	Baghouse	P-26-13
S-26- 37b	Raw Silo No. 6	Drop from Raw Silo No. 6 to Pneumatic Conveyor	Baghouse	P-26-13
S-26-38	Raw Mill Building	Bucket Elevator	Baghouse	P-26-14
S-26- 39a	Raw Mill	Raw Mill	Baghouse	P-26-15
S-26- 39b	Raw Mill	Grit Separator	Baghouse	P-26-15
S-26-40	Raw Mill	Airslide	Baghouse	P-26-15

Source	Location	Source Description	Control	Emission Point
S-26-41	Raw Mill	Airslide from Bucket Elevators to Separator	Baghouse	P-26-15
S-26-42	Raw Mill	Air Separator	Baghouse	P-26-17
S-26-43	Raw Mill	Impact Flow Meter	Baghouse	P-26-14
S-26-44	Raw Mill	Airslide	Baghouse	P-26-14
S-26-45	Raw Mill	Airslide	Baghouse	P-26-14
S-26-46	Raw Mill	Drop from Two-Way Gate to Belt No. 3-2	Baghouse	P-26-21
S-26-47	Raw Mill	Drop from Belt No. 3-2 to Belt No. 3-3	Baghouse	P-26-18
S-26-48	Raw Mill	Drop from Belt No. 3-3 to Hydraulic Roll Crusher	Baghouse	P-26-18
S-26-49	Raw Mill	Hydraulic Roll Crusher	Baghouse	P-26-18
S-26-50	Raw Mill	Hydraulic Roll Crusher to Belt No. 3-9	Baghouse	P-26-18
S-26-51	Raw Mill	Drop from Belt No. 3-9 to Bucket Elevator	Baghouse	P-26-21
S-26-52	Raw Mill	Bucket Elevator	Baghouse	P-26-21
S-26-53	Raw Mill	Drop from Splitter Gate (top of Bucket Elevator) to Belt No. 3-3	Baghouse	P-26-21
C 2C E4	Davi Mill	Drop from Splitter Gate (top of Bucket	Baghouse	P-26-18
S-26-54	Raw Mill	Elevator) to Belt No. 3-12	Baghouse	P-26-21
S-26-55	Raw Mill	Drop from Belt No. 3-12 to Feed Hopper	Baghouse	P-26-21
S-26-56	Raw Mill	Miscellaneous Raw Mill Equipment	Baghouse	P-26-16
S-26-57	Raw Mill	Kiln Dust Airslide	Baghouse	P-26-22
S-26-58	Raw Mill	Kiln Dust Airslide	Baghouse	P-26-22
S-26-59	Raw Mill	Kiln Dust Airslide	Baghouse	P-26-22
S-26-60	Raw Mill	Kiln Dust Collection Bin	Baghouse	P-26-22
S-26-61	Raw Mill	Flyash Airslide	Baghouse	P-26-23
S-26-62	Raw Mill	Flyash Airslide	Baghouse	P-26-23
S-26-63	Raw Mill	Flyash Airslide	Baghouse	P-26-23
S-26-64	Raw Mill	Flyash Collection Bin	Baghouse	P-26-23
S-26-65	Raw Mill	Flyash Airslide	Baghouse	P-26-24
S-26-66	Raw Mill	Flyash Airslide	Baghouse	P-26-24
S-26-67	Raw Mill	Flyash Airslide	Baghouse	P-26-24

Source	Location	Source Description	Control	Emission Point
S-26-68	Raw Mill	Flyash Collection Bin	Baghouse	P-26-24
S-26-69	Raw Mill	Kiln Dust Airslide	Baghouse	P-26-25
S-26-70	Raw Mill	Kiln Dust Bin	Baghouse	P-26-25
S-26-71	Raw Mill	Flyash Airslide	Baghouse	P-26-26
S-26-72	Raw Mill	Flyash Bin	Baghouse	P-26-26
S-26-73	Raw Mill	Kiln Dust Airslide	Baghouse	P-26-27
S-26-74	Raw Mill	Flyash Airslide	Baghouse	P-26-27
S-26-75	Raw Mill	FK Pump	Baghouse	P-26-27
S-26-76	Raw Mill	Flyash/Kiln Dust Pneumatic Transfer Line	Baghouse	P-26-28
S-26-77	Raw Mill	Bottom Ash and Sand System	Uncontrolled	FUG

Materials entering this area are blended in a series of silos based on production requirements. Kiln feed equipment includes a series of belt bucket elevators, distributor vessels, airslides, diverter gates, pumps, and other related equipment. Once blended, feed material is then conveyed into the elevated end of the kiln system.

Area 28 is comprised of the following sources:

Source	Source Description	Control	Emission Point
C 20 01	Dolt Duelot Flouritan No. 1	Baghouse	P-28-01 P-28-01 P-28-01 P-28-01 P-28-01 P-28-01 P-28-03 P-28-03 P-28-02 P-28-04 P-28-05 P-28-06 P-28-07 P-28-08a P-28-08a P-28-08a P-28-08a P-28-08a P-28-08a P-28-08a P-28-08a P-28-08a
S-28-01	Belt Bucket Elevator No. 1	Baghouse	P-28-02
S-28-02	Belt Bucket Elevator No. 2	Baghouse	P-28-01
S-28-03	Distributor Vessel for Silos No. and No. 2	Baghouse	P-28-01
S-28-04	Standby Airlift at Top of Blending Silos	Baghouse	P-28-03
S-28-05	Diverter Gate at Top of Blending Silos	Baghouse	P-28-03
S-28-06	Distributor Vessel	Baghouse	P-28-02
S-28-07	Silo No. 1	Baghouse	P-28-04
S-28-08	Silo No. 2	Baghouse	P-28-05
S-28-09	Silo No. 3	Baghouse	P-28-06
S-28-10	Silo No. 4	Baghouse	P-28-07
S-28-11	24-inch Airslide	Baghouse	P-28-08a
S-28-12	Diversion Bins, Silos No. 1 and No. 2	Baghouse	P-28-08a
S-28-13	Diversion Bins, Silos No. 3 and No. 4	Baghouse	P-28-08a
S-28-14	20-inch Airslide	Baghouse	P-28-08a
S-28-15	Belt Bucket Elevator	Baghouse	P-28-08a
S-28-16	Kiln Feed Bin	Baghouse	P-28-08a
S-28-17	FK Pump No. 1 Impact Flow Meter	Baghouse	P-28-08b
S-28-18	FK Pump No. 1 To Preheater String No. 1	Baghouse	P-28-08b
S-28-19	FK Pump No. 2 Impact Flow Meter	Baghouse	P-28-08b
S-28-20	FK Pump No. 2 To Preheater String No. 2	Baghouse	P-28-08B
S-28-21	Standby FK Pump Impact Flow Meter	Baghouse	P-28-08b
S-28-22	Standby F.K. Pump	Baghouse	P-28-08b
S-28-23	Standby Airlift at Bottom of Blending Silos	Baghouse	P-28-09

Holcim currently operates a single dry process in-line rotary kiln with two (2) rotary dryers which were originally constructed in 1980. No major modifications have been performed on the kiln system since the original construction date.

Feed from the blending system descends by gravity, against a flow of hot gases, from the top of the preheater tower featuring four [4] cyclones which act as heat exchangers between the hot kiln gases and raw feed. During this process, the temperature is raised progressively to 1,560° F. As a result, limestone is de-carbonated into lime. At the bottom of the tower, a combustion chamber called a *precalciner* provides an additional combustion zone increasing the overall efficiency of the process. The heat needed to complete the calcining process is provided primarily by fuel directly added to the precalciner chamber, and partially by an air stream ducted directly from the clinker cooler ["tertiary air"]. After the pre-calcining phase, the material passes into the rotary kiln. Hot gases exiting the preheater are routed back into the twin rotary dryers to facilitate the raw material drying process.

The rotary kiln is comprised of a steel tube lined with firebrick. The tube slopes slightly [1–4°] and slowly rotates on its axis at between 30 and 250 revolutions per hour. Raw material exiting the pre-calciner is fed in at the upper end of the kiln. Rotation causes the material, in nearly liquid form, to gradually move downhill to the other end of the kiln. A coal mill pulverizes solid fuel into a fine powder prior to being blown into the opposite end of the kiln, developing a long flame with temperatures exceeding 3,000° F. During this stage, chemical recombination occurs, producing the intermediate product referred to as *clinker*. The clinker, still at 2,600° F, is then discharged from the kiln into the clinker cooler, where ambient air is injected to reduce the temperature to approximately 200° F.

Holcim primarily combusts coal in the kiln system. In addition, the kiln is permitted to combust several alternative fuels including, but not limited to, the following: petcoke, fuel oil, natural gas, wood byproducts, paper products, tire derived fuel [TDF], grease, oil absorbents, biodiesel byproducts, tab shingles, carbon derived fuels, on- and off-spec used oils, glycols, shredded plastics, and BD Heavies.

Hot gases exiting the rotary dryers, kiln, and cooler system pass through a large baghouse before exiting at a single stack.

Area 29 is comprised of the following sources:

Source	Source Description	<b>Control Device</b>	Emission Point
S-29-01	Rotary Cement Kiln	Baghouse	P-29-01
S-29-02	Clinker Cooler	Baghouse	P-29-01
S-29-03	Dryer No. 1	Baghouse	P-29-01
S-29-04	Dryer No. 2	Baghouse	P-29-01

# Emissions from these sources are monitored as follows:

Pollutant	Compliance Method
Carbon Monoxide [CO]	CEMS
Nitrogen Oxides [NO <sub>x</sub> ]	CEMS
Sulfur Dioxide [SO₂]	CEMS
Particulate Matter [PM]	Method 5 Emissions Tests
Volatile Organic Compounds [VOC]	CEMS
Opacity	COMS
Dioxins/Furans [D/F]	Method 23 Emissions Tests

The Clinker Cooler Conveying is part of the post-kiln product cement finishing process. After the clinker is cooled in the clinker cooler, it is conveyed to the finish mills.

# Area 34 is comprised of the following sources:

Source	Source Description	Control	Emission Point
S-34-01	Bypass System Vibrating Feeder	Baghouse	P-34-01
S-34-02	Bypass System Vibrating Feeder	Baghouse	P-34-01
C 24 02	North Door Budget Conveyor	Baghouse	P-34-01
S-34-03	North Deep Bucket Conveyor	Baghouse	
6 24 04	Carrello Charrello Danas Divelat Carrello	Baghouse	P-34-01
S-34-04	South Standby Deep Bucket Conveyor	Baghouse	P-34-01 P-34-01 P-35-01

The clinker handling and storage are all part of the post-kiln product cement finishing process. After the clinker is cooled in the clinker cooler, the cooled clinker is then conveyed to the Finish Mill or stored in clinker silos.

Area 35 is comprised of the following sources:

Source	Source Description	Control	Emission Point
S-35-01	Drag Convoyor No. 1	Baghouse	P-35-01
2-22-01	Drag Conveyor No. 1	Baghouse	P-35-02
S-35-02	Bucket Elevator	Baghouse	P-35-03
S-35-03	Drag Conveyor No. 2	Baghouse	P-35-04
S-35-04	Outer Shell Clinker Silo, North	Baghouse	P-35-04
3-33-04	Outer Shell Clinker Sho, North	Baghouse	P-35-05
S-35-05	Outor Shall Clinkar Sila South	Baghouse	P-35-06
3-33-03	Outer Shell Clinker Silo, South	Baghouse	P-35-07
S-35-06	Gypsum Silo	Baghouse	P-35-06
S-35-07	Cement Grindout Silo	Baghouse	P-35-08
S-35-08	Masonry Rock Silo	Baghouse	P-35-08
S-35-09	Slag Silos	Baghouse	P-35-08
S-35-10	Distribution Box	Baghouse	P-35-09
S-35-11	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-10
S-35-12	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-11
S-35-13	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-12
S-35-14	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-13
S-35-15	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-14
S-35-16	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-11
S-35-17	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-15
S-35-18	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-16
S-35-19	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-17
S-35-20	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-18
S-35-21	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-19

Source	Source Description	Control	Emission Point
S-35-22	Drop Point: Weigh Feeder to FM No. 1 Belt Conveyor	Baghouse	P-35-19
S-35-23	Drop Point: Front End Loader to FM No. 1 Hopper	Baghouse	P-35-29
S-35-24	Drop Point: FM No. 1 Hopper to FM No. 1 Bucket Elevator	Baghouse	P-35-29
S-35-25	Drop Point: FM No. 1 Bucket Elevator to Reversible Belt	Baghouse	P-35-29
S-35-26	Drop Point: Reversible Belt to FM No. 1 Belt Conveyor	Baghouse	P-35-29
S-35-27	Drop Point: Reversible Belt to FM No. 2 Belt Conveyor	Baghouse	P-35-20
S-35-28	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-20
S-35-29	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-21
S-35-30	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-22
S-35-31	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-23
S-35-32	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-24
S-35-33a	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-25
S-35-33b	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-25
S-35-33c	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-25
S-35-34	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-25
S-35-35	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-26
S-35-36	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-27
S-35-37	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-28
S-35-38	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-28
S-35-39	Drop Point: Weigh Feeder to FM No. 2 Belt Conveyor	Baghouse	P-35-27

Cooled clinker is conveyed to one of two finish mills where it is ground with gypsum and slag into fine-powdered cement. In the mill, the feed materials are mixed and ground until the desired size is achieved. In addition, grinding aids and other additives are introduced into the mill in order to achieve desired quality specifications. The powdered material then passes thorough a separator, which is used to divide fine particles from coarse particles. Coarse particles are returned to the mill for further grinding. Fine particles pass through a dust collector and cooler before being pneumatically conveyed to the land silos or marine silos for storage and shipping.

Finish Mills No. 1 and No. 2 were originally constructed in 1980. Each mill is a horizontal rotary ball mill with rated maximum process capacities of approximately 2.8 million tons per year. Particulate matter emissions are controlled from various handling and transfer points by various baghouses.

Area 41 is comprised of the following sources:

Source ID	Location	Source Description	Control	Emission Point
S-41-01	Finish Mill No. 1	Finish Mill No. 1	Baghouse	P-41-01
S-41-02	Finish Mill No. 1	Bucket Elevator	Baghouse	P-41-01
S-41-03	Finish Mill No. 1	Bucket Elevator	Baghouse	P-41-01
S-41-04	Finish Mill No. 1	High Efficiency Separator	Baghouse	P-41-02
S-41-05	Finish Mill No. 1	Drop from Belt Conveyor to Finish Mill No. 1	Baghouse	P-41-03
S-41-06	Finish Mill No. 1	16-inch Airslide to Cooler Dust Collector	Baghouse	P-41-03
S-41-07	Finish Mill No. 1	16-inch Airslide to FK Pump	Baghouse	P-41-03
S-41-08	Finish Mill No. 1	FK Pump No. 1	Baghouse	P-41-03
S-41-09	Finish Mill No. 1	Standby FK Pump	Baghouse	P-41-03
3-41-09	Finish Mill No. 2	Standby FK Pump	Baghouse	P-41-04
S-41-10	Finish Mill No. 2	FK Pump No. 2	Baghouse	P-41-04
S-41-11	Finish Mill No. 2	Drop from Belt Conveyor to Finish Mill No. 2	Baghouse	P-41-04
S-41-12	Finish Mill No. 2	16-inch Airslide to Finish Mill No. 2	Baghouse	P-41-04
S-41-13	Finish Mill No. 2	Bucket Elevator	Baghouse	P-41-05
S-41-14	Finish Mill No. 2	Bucket Elevator	Baghouse	P-41-05
S-41-15	Finish Mill No. 2	Finish Mill No. 2	Baghouse	P-41-05
S-41-16	Finish Mill No. 2	High Efficiency Separator	Baghouse	P-41-06

This area constitutes the final stage of the cement manufacturing process. Powdered cement from the finish mill is pneumatically conveyed to the storage silo where it is prepared for shipping. The finished product is generally shipped in bulk via barge, truck, or rail car. All bagged goods are shipped in customer owned trucks.

Area 51 is comprised of the following sources:

Source	Location	Source Description	Control	Emission Point
S-51-01	Land Silos	Cement Silos No. 1 through No. 13,	Baghouse	P-51-01
3-31-01	Land Silos	Excluding Silo No. 8	Baghouse	P-51-02
S-51-02	Land Silos	Concrete Silo No. 8, Masonry	Baghouse	P-51-03
S-51-03	Land Silos	Truck Scale, North Loading Bay	Baghouse	P-51-04
S-51-04	Land Silos	Retractable Loading Spout, Center Bay	Baghouse	P-51-05
S-51-05	Land Silos	Truck and Railroad Scale, South Loading Bay	Baghouse	P-51-06
S-51-06	Land Silos	Rotary Cut off Valve, FK Pump No. 1	Baghouse	P-51-12
S-51-07	Pack House	Rotary Cut off Valve, FK Pump No. 2	Baghouse	P-51-07
		Baghouse	P-51-08	
S-51-08	Pack House	9" Screw Conveyor, Spill Hopper	Baghouse	P-51-11
			Baghouse	P-51-11
S-51-09	Pack House	Bucket Elevator	Baghouse	P-51-08
S-51-10	Pack House	Scalping Screen	Baghouse	P-51-08
S-51-11	Pack House	4 Tube Packer, Type #1 or Masonry	Baghouse	P-51-08
S-51-12	Pack House	Coment Storage Pin Type #1 or Maconny	Baghouse	P-51-08
3-31-12	Pack nouse	Cement Storage Bin, Type #1 or Masonry	Baghouse	P-51-09
S-51-13	Pack House	Compant Storage Bin Type #1	Baghouse	P-51-10
2-21-13	Pack nouse	Cement Storage Bin, Type #1	Baghouse	P-51-11
S-51-14	Pack House	Scalping Screen	Baghouse	P-51-11
S-51-15	Pack House	Bucket Elevator	Baghouse	P-51-11
S-51-16	Pack House	4 Tubo Packor Typo 1	Baghouse	P-51-11
2-21-10	rack nouse	4 Tube Packer, Type 1	Baghouse	P-51-11

This area constitutes the final stage of the cement manufacturing process. Powdered cement from the finish mill is pneumatically conveyed to the storage silo where it is prepared for shipping. The finished product is generally shipped in bulk via barge, truck, or rail car. All bagged goods are shipped in customer owned trucks.

Area 53 is comprised of the following sources:

Source	Source Description Co		Emission Point
S-53-01	Masonry Concrete Silo No. 11	oncrete Silo No. 11 Baghouse	
S-53-02	Coment Siles No. 12 through No. 16	Baghouse	P-53-02
3-33-02	Cement Silos No. 12 through No. 16	Baghouse	P-53-03
S-53-03	Silo No. 11 Loadout Spout	Baghouse	P-53-04
S-53-04	Silo No. 12 Loadout Spout	Silo No. 12 Loadout Spout Baghouse	
S-53-05	Silo No. 13 Loadout Spout	Silo No. 13 Loadout Spout Baghouse	
S-53-06	Silo No. 14 Loadout Spout Baghouse		P-53-07
S-53-07	Silo No. 15 Loadout Spout Baghouse		P-53-08
S-53-08	Silo No. 16 Loadout Spout Baghouse		P-53-09

Coal/petcoke sent to the coal mill is finely ground and dried with a heated air stream directed from the kiln system. The air stream transports coal out of the mill into a cyclone, which separates air from coal particles for injection into the kiln. Gas exhaust from the cyclone is divided; part returning to the mill and part entering the kiln. In addition to coal, carbon fines are used as fuel for the kiln. Fines imported into the facility by truck and stored in a silo. These fines are injected into the kiln alongside ground coal exiting the coal mill.

### Area 95 is comprised of the following sources:

Source ID	Source Description	Control Device	Emission Point ID
S-95-01	Drop Point: Belt Conveyor to Coal Silo	Baghouse	P-95-01
S-95-02	Coal Silo Agitator	Baghouse	P-95-01
S-95-03	Pulverized Coal Mill	Baghouse	P-95-02
S-95-04	Pulverized Coal Bin	Baghouse	P-95-03
S-95-05	Coal FK Pump	Baghouse	P-95-04
S-95-06	Coal FK Pump	Baghouse	P-95-05
S-95-07	Coal FK Pump	Baghouse	P-95-06

Emissions from each source located at this facility are summarized in the following sections.

Particulate matter [PM] emissions are the only emissions of any significance expected from these sources. Pre-control potential, allowable, and expected PM emissions from each source within this Area are summarized in the following tables.

#### **Controlled Emissions**

Emission	Emission Associated		ntial	Allowable		Expected	
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-19-03						
	S-19-04						
P-19-01	S-19-06	36.3	159	0.36	1.59	0.36	0.13
	S-19-07						
	S-19-09						
P-19-02	S-19-08	129	563	1.29	5.63	1.29	0.22
P-19-02	S-19-10	129	303	1.29	5.05	1.29	0.22
	S-19-11						
	S-19-12						
P-19-03	S-19-13	36.3	159	0.36	1.59	0.36	0.13
	S-19-14						
	S-19-15						

- <sup>a</sup> Calculated assuming 99% control efficiency.
- b Calculated assuming a maximum of 8,760 hours of operation per year.
- <sup>c</sup> Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume
- d Calculated assuming a maximum of 8,760 hours of operation per year.
- <sup>e</sup> Assumed to equal the allowable emission limit.
- f Calculated using allowable emission rate at historical production levels.

### **Uncontrolled Emissions**

Sources	Pote	Potential		rted
	[lb/hr] <sup>g</sup>	[TPY] <sup>/</sup>	[lb/hr] <sup>′</sup>	[TPY] <sup>j</sup>
S-19-01				
S-19-02	5.02			
S-19-16		5.02		
S-19-05			F 03	20.66
S-19-17		21.99	5.02	20.66
S-19-18				
S-19-19				
S-19-20				

 $<sup>^{\</sup>it g}$  Calculated using industry standard emissions factors.

h Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>i</sup> Assumed to equal potential emissions.

<sup>&</sup>lt;sup>j</sup> Calculated using potential emission rate at historical production levels.

Particulate matter [PM] emissions are the only emissions of any significance expected from these sources. Pre-control potential, allowable, and expected PM emissions from each source within this Area are summarized in the following tables.

#### **Controlled Emissions**

Emission	Associated	Pote	ntial	Allowable		Expected	
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-24-13						0.14
P-24-01	S-24-14	129	563	1.29	5.63	1.29	
	S-24-15						
P-24-02	S-24-22	129	563	1.29	5.63	1.29	0.14
P-24-03	S-24-23	42.9	188	0.43	1.88	0.43	0.05
P-24-04	S-24-24	77.1	338	0.77	3.38	0.77	0.10
	S-24-31				3.00	0.69	0.003
	S-24-32						
	S-24-33						
	S-24-34						
	S-24-35						
	S-24-36						
	S-24-12						
P-24-05	S-24-16	68.6	300	0.69			
	S-24-17						
	S-24-18						
	S-24-19						
	S-24-20						
	S-24-29						
	S-24-30						
	S-24-37						

<sup>&</sup>lt;sup>a</sup> Calculated assuming 99% control efficiency.

b Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>c</sup> Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume

d Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>e</sup> Assumed to equal the allowable emission limit.

f Calculated using allowable emission rate at historical production levels.

### **Uncontrolled Emissions**

	Potei	ntial	Expected		
Sources	[lb/hr] <sup>g</sup>	[TPY] <sup>h</sup>	[lb/hr] <sup>i</sup>	[TPY] <sup>j</sup>	
S-24-01					
S-24-02					
S-24-03					
S-24-04					
S-24-05					
S-24-06					
S-24-07					
S-24-08					
S-24-09					
S-24-10					
S-24-11					
S-24-12					
S-24-16	4.46	19.5	4.46	8.20	
S-24-17					
S-24-18					
S-24-19					
S-24-20					
S-24-21	Ten				
S-24-25	-5				
S-24-26					
S-24-27	nc				
S-24-28					
S-24-29					
S-24-30	•				
S-24-37					

 $<sup>^{\</sup>it g}$  Calculated using industry standard emissions factors.

Calculated assuming a maximum of 8,760 hours of operation per year.

i Assumed to equal potential emissions.

<sup>&</sup>lt;sup>j</sup> Calculated using potential emission rate at historical production levels.

Particulate matter [PM] emissions are the only emissions of any significance expected from these sources. Pre-control potential, allowable, and expected PM emissions from each source within this Area are summarized in the following tables.

### **Controlled Emissions**

Emission	Associated	ociated Potential		Allov	vable	Expected		
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>	
P-26-01	S-26-01	78.5	344	0.70	3.44	0.79	0.68	
P-20-U1	S-26-07	/8.5	344	0.79	3.44	0.79	0.08	
	S-26-02							
	S-26-03							
P-26-02	S-26-04	103	451	1.03	4.51	1.03	0.75	
	S-26-05							
	S-26-06							
P-26-03	S-26-08	78.5	344	0.70	3.44	0.79	0.68	
P-20-03	S-26-14	76.5	344	0.79	3.44	0.79	0.08	
	S-26-09	103	451	1.03	4.51	1.03	0.75	
	S-26-10							
P-26-04	S-26-11							
	S-26-12							
	S-26-13							
	S-26-16	129	563	1.29	5.63	1.29	0.23	
	S-26-17							
P-26-05	S-26-18							
P-20-05	S-26-19	129	202	1.29				
	S-26-21							
	S-26-22							
	S-26-16							
	S-26-17						0.04	
D 26 06	S-26-18	90.9	200	0.01	3.98	0.91		
P-26-06	S-26-19		398	0.91				
	S-26-21							
	S-26-22							

Emission	Associated	Pote	ntial	Allov	vable	Expected	
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-26-16						0.23
	S-26-17						
P-26-07	S-26-18	129	563	1.29	5.63	1.29	
P-20-07	S-26-19	129	303	1.29	3.03	1.29	0.23
	S-26-21						
	P-26-22						
P-26-08	S-26-08	24.0	105	0.24	1.05	0.24	0.16
P-26-09	S-26-30	12.9	56.3	0.13	0.56	0.13	0.01
	S-26-31						
P-26-10	S-26-32	26.4	115	0.26	1.15	0.26	0.01
P-20-10	S-26-33	20.4	115	0.26	1.15	0.26	
	S-26-34						
P-26-12	S-26-36	24.0	105	0.24	1.05	0.24	0.001
P-26-13	S-26-37a	22.0	97.6	0.22	1.00	0.22	0.62
P-20-13	S-26-37b			0.22	1.00	0.22	0.02
	S-26-38	47.5	208				0.74
P-26-14	S-26-43			0.47	2.08	0.47	
P-20-14	S-26-44				2.00		
	S-26-45						
	S-26-39		3,188	7.28	31.9	7.28	11.4
P-26-15	S-26-40	728					
	S-26-41						
P-26-16	S-26-56	133	582	1.33	5.82	1.33	2.08
P-26-17	S-26-42	117	511	1.17	5.11	1.33	1.83
	S-26-46						
	S-26-47						
	S-26-48						
	S-26-49						
P-26-18	S-26-50	206	901	2.06	9.01	2.06	2.55
	S-26-51						
	S-26-52						
	S-26-53						
	S-26-54						

Emission	Associated	Pote	ntial	Allowable		Expected	
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-26-55						
	S-46-46						
	S-46-51						
D 26 21	S-46-52	05.7	275	0.00	2.75	0.00	1 24
P-26-21	S-46-53	85.7	375	0.86	3.75	0.86	1.34
	S-46-54						
	S-46-55						
	S-26-57						
D 26 22	S-26-58	2 50	15.2	0.02	0.15	0.03	0.04
P-26-22	S-26-59	3.50	15.3	0.03			0.04
	S-26-60						
	S-26-61	3.50	15.3	0.03	0.15	0.03	0.01
P-26-23	S-26-62						
P-20-23	S-26-63						
	S-26-64						
	S-26-65	3.50	15.3	0.03	0.15	0.03	0.01
P-26-24	S-26-66						
P-20-24	S-26-67						
	S-26-68						
P-26-25	S-26-69	гэг	23.0	0.05	0.23	0.05	0.06
P-20-25	S-26-70	5.25	23.0	0.05	0.23	0.05	0.06
D 26 26	S-26-71	E 2E	22.0	0.05 °	0.22	0.05	0.02
P-26-26	S-26-72	5.25	23.0	0.05	0.23	0.05	0.02
	S-26-73						411111111111111111111111111111111111111
P-26-27	S-26-74	6.99	30.6	0.07	0.31	0.07	0.08
	S-26-75						
P-26-28	S-26-76	36.1	158	0.3	1.58	0.36	0.40

<sup>&</sup>lt;sup>a</sup> Calculated assuming 99% control efficiency.

b Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>c</sup> Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume

Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>e</sup> Assumed to equal the allowable emission limit.

 $<sup>^{</sup>f}$  Calculated using allowable emission rate at historical production levels.

### **Uncontrolled Emissions**

6	Poter	ntial	Expected		
Sources	[lb/hr] <sup>g</sup>	[TPY] <sup>h</sup>	[lb/hr] <sup>'</sup>	[TPY] <sup>j</sup>	
S-26-15					
S-26-20					
S-26-23		19.5			
S-26-24					
S-26-25	4.46		4.46	9.20	
S-26-26	4.46		4.46	8.20	
S-26-27					
S-26-29					
S-26-35					
S-26-77					

<sup>&</sup>lt;sup>g</sup> Calculated using industry standard emissions factors.

h Calculated assuming a maximum of 8,760 hours of operation per year.

Assumed to equal potential emissions.

<sup>&</sup>lt;sup>j</sup> Calculated using potential emission rate at historical production levels.

Particulate matter [PM] emissions are the only emissions of any significance expected from these sources. Pre-control potential, allowable, and expected PM emissions from each source within this Area are summarized in the following table. All sources of emissions from this process are controlled.

Emission	Associated	Pote	ential	Allov	vable	Expected		
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>	
	S-28-01						2.85	
P-28-01	S-28-02	129	563	1.29	5.63	1.29		
	S-28-03							
P-28-02	S-28-01	129	563	1.29	5.63	1.29	2.85	
P-20-U2	S-28-06	129	203	1.29	5.05	1.29	2.65	
P-28-03	S-28-04	129	563	1.29	5.63	1.29	2.85	
F-20-03	S-28-05	129	303	1.29	3.03	1.29	2.63	
P-28-04	S-28-07	13.7	60.1	0.14	0.60	0.14	0.08	
P-28-05	S-28-08	13.7	60.1	0.14	0.60	0.14	0.08	
P-28-06	S-28-09	13.7	60.1	0.14	0.60	0.14	0.08	
P-28-07	S-28-10	13.7	60.1	0.14	0.60	0.14	0.08	
	S-28-11	68.6	300	0.69	3.00	0.69	0.76	
	S-28-12							
P-28-08a	S-28-13							
P-20-00d	S-28-14							
	S-28-15							
	S-28-16							
	S-28-17							
	S-28-18						0.07	
P-28-08b	S-28-19	42.0	192	0.44	1.92	0.44		
r-28-U8D	S-28-20	43.9	192	U.44	1.92	U.44	0.97	
	S-28-21							
	S-28-22							
P-28-09	S-28-23	18.4	80.7	0.18	0.81	0.18	0.41	

<sup>&</sup>lt;sup>a</sup> Calculated assuming 99% control efficiency.

b Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>c</sup> Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume

d Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>e</sup> Assumed to equal the allowable emission limit.

f Calculated using allowable emission rate at historical production levels.

Emissions from the kiln, rotary dryers, and cooler are routed to a single main stack. Emissions pass through a baghouse, which controls particulate matter emissions.

#### **Controlled Emissions**

#### Particulate Matter [PM]

Emission Point[s]	Associated	Potential		Allowable			Expected		
	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/tkf] <sup>c</sup>	[lb/hr] <sup>d</sup>	[TPY] <sup>e</sup>	[lb/tkf] <sup>f</sup>	[lb/hr] <sup>g</sup>	[TPY] <sup>h</sup>
	S-29-01	9,300	40,734	0.3	93.0	407	0.07	25.7	78
D 20 01	S-29-02								
P-29-01	S-29-03								
	S-29-04								

- <sup>a</sup> Calculated assuming 99% baghouse control efficiency.
- b Calculated assuming a maximum of 8,760 hours of operation per year.
- <sup>c</sup> 40 CFR 63, Subpart LLL limit
- d BACT limit
- <sup>e</sup> Calculated assuming a maximum of 8,760 hours of operation per year
- f Method 5 emissions test performed on October 28, 2008
- Method 5 emissions test performed on October 28, 2008
- h 2008 Title V emissions estimate

#### **Uncontrolled Emissions**

#### Carbon Monoxide [CO]

Emission Point[s]	Associated	Potential		Allowable		Expected	
	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-29-01	4,027	17,637	4,027	17,637	658	2,729
D 20 01	S-29-02						
P-29-01	S-29-03						
	S-29-04						

- <sup>a</sup> Potential emissions equal allowable emissions since emissions are uncontrolled.
- b Potential emissions equal allowable emissions since emissions are uncontrolled.
- Calculated assuming a maximum of 8,760 hours of operation per year
- d Anti-PSD limit
- Estimated assuming 8,296 hours of operation reported during 2008
- f 2008 Title V emissions estimate CEMS data

Sulfur Dioxide [SO<sub>2</sub>]

Emission	Associated Source[s]	Potential		Allowable		Expected	
Point[s]		[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-29-01	26.9	118		118	4.82	20.0
D 20 01	S-29-02			26.9			
P-29-01	S-29-03						
	S-29-04						

- <sup>a</sup> Potential emissions equal allowable emissions since emissions are uncontrolled.
- Potential emissions equal allowable emissions since emissions are uncontrolled.
- Calculated assuming a maximum of 8,760 hours of operation per year
- d Anti-PSD limit
- e Estimated assuming 8,296 hours of operation reported during 2008
- 2008 Title V emissions estimate CEMS data

Nitrogen Oxides [NO<sub>x</sub>]

The ogen exacts [Hex]							
Emission Point[s]	Associated Source[s]	Potential		Allowable		Expected	
		[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-29-01	684	2,998	684	2,998	655	2,718
D 20 01	S-29-02						
P-29-01	S-29-03						
	S-29-04						

- <sup>a</sup> Potential emissions equal allowable emissions since emissions are uncontrolled.
- Potential emissions equal allowable emissions since emissions are uncontrolled.
- Calculated assuming a maximum of 8,760 hours of operation per year
- Anti-PSD limit
- e Estimated assuming 8,296 hours of operation reported during 2008
- 2008 Title V emissions estimate CEMS data

Volatile Organic Compounds [VOC]

Emission	Associated	Potential		Allowable		Expected	
Point[s]	Source[s]	[lb/hr] ª	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-29-01		2.416	483	2,116		111
P-29-01	S-29-02	483				26.8	
P-29-01	S-29-01 S-29-03		2,116			20.0	
	S-29-04						

- <sup>a</sup> Potential emissions equal allowable emissions since emissions are uncontrolled.
- b Potential emissions equal allowable emissions since emissions are uncontrolled.
- c Calculated assuming a maximum of 8,760 hours of operation per year
- d Anti-PSD limit
- e Estimated assuming 8,296 hours of operation reported during 2008
- f 2008 Title V emissions estimate CEMS data

Dioxins/Furans [D/F]

Dioxinoj, di dio [5,1]								
		Potential		Allowable		Expected		
Emission Point[s]	Associated Source[s]	T ≤ 400°F <sup>c</sup>	T > 400°F <sup>d</sup>	T ≤ 400°F <sup>c</sup>	T > 400°F <sup>d</sup>	T ≤ 400°F <sup>c</sup>	T > 400°F <sup>d</sup>	
	Jource[5]	(ng/dscm	(ng/dscm @ 7% O₂)		(ng/dscm @ 7% O₂)		(ng/dscm @ 7% O₂)	
	S-29-01							
D 20 01	S-29-02	0.40	0.20	0.40	0.20	0.006	0.005	
P-29-01	S-29-03			0.40	0.20	0.006	0.005	
	S-29-04							

<sup>&</sup>lt;sup>a</sup> Potential emissions equal allowable emissions since emissions are uncontrolled.

b Potential emissions equal allowable emissions since emissions are uncontrolled.

<sup>&</sup>lt;sup>c</sup> 40 CFR 63, Subpart LLL limit

<sup>40</sup> CFR 63, Subpart LLL limit

Method 23 emissions test performed on October 28, 2008

Method 23 emissions test performed on October 28, 2008

Emission	Associated	Potential		Allowable		Expected			
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>		
	S-34-01	104							
D 04 04	S-34-02		455	1.04	4.55	1.04	2.07		
P-34-01	S-34-03								
	S-34-04								
D 2F 01	S-34-03		6		Area 35 emissions calculations.				
P-35-01	S-34-04		see /	areu 35 emiss	SIONS CAICUIAL	ioris.			

- <sup>a</sup> Calculated assuming 99% control efficiency.
- b Calculated assuming a maximum of 8,760 hours of operation per year.
- <sup>c</sup> Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume
- d Calculated assuming a maximum of 8,760 hours of operation per year.
- <sup>e</sup> Assumed to equal the allowable emission limit.
- f Calculated using allowable emission rate at historical production levels.

Emission	Associated	Pote	ntial	Allov	vable	Ехре	cted
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
P-35-01	C 2E 04	02.0	405	0.93	4.05	0.03	1 11
P-35-02	S-35-01	93.0	405	0.93	4.05	0.93	1.11
P-35-03	S-35-02	22.0	98.0	0.22	0.98	0.22	0.002
D 25 04	S-35-03	116	F07	1 16	E 07	1 16	1 20
P-35-04	S-35-04	116	507	1.16	5.07	1.16	1.39
P-35-05	S-35-04	116	507	1.16	5.07	1.16	1.39
D 25 06	S-35-05	96.0	420	0.96	4.20	0.96	1 16
P-35-06	S-35-06	96.0	420	0.96	4.20	0.90	1.16
P-35-07	S-35-05	96.0	420	0.96	4.20	0.96	1.16
	S-35-07						
P-35-08	S-35-08	108	473	1.08	4.73	1.08	0.44
	S-35-09						
P-35-09	S-35-10	56.0	244	0.56	2.44	0.56	0.67
P-35-10	S-35-11	13.0	56.0	0.13	0.56	0.13	0.08
P-35-11	S-35-12	13.0	56.0	0.42	0.56	0.13	0.08
F-33-11	S-35-16	15.0	30.0	0.13	0.30	0.13	0.08
P-35-12	S-35-13	13.0	56.0	0.13	0.56	0.13	0.08
P-35-13	S-35-14	13.0	56.0	0.13	0.56	0.13	0.08
P-35-14	S-35-15	13.0	56.0	0.13	0.56	0.13	0.08
P-35-15	S-35-17	13.0	56.0	0.13	0.56	0.13	0.08
P-35-16	S-35-18	13.0	56.0	0.13	0.56	0.13	0.08
P-35-17	S-35-19	13.0	56.0	0.13	0.56	0.13	0.08
P-35-18	S-35-20	13.0	56.0	0.13	0.56	0.13	0.08

I			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	;		:
P-35-19	S-35-21	13.0	56.0	0.13	0.56	0.13	0.08
. 00 =0	S-35-22		<b></b>	0.20	0.00	0.20	
P-35-20	S-35-27	13.0	56.0	0.13	0.56	0.13	0.08
P-33-20	S-35-28	13.0	30.0	0.15	0.30	0.13	0.08
P-35-21	S-35-29	26.0	113	0.26	1.13	0.26	0.15
P-35-22	S-35-30	13.0	56.0	0.13	0.56	0.13	0.08
P-35-23	S-35-31	13.0	56.0	0.13	0.56	0.13	0.08
P-35-24	S-35-32	13.0	56.0	0.13	0.56	0.13	0.08
	S-35-33a						
ם אר אר	S-35-33b	26.0	113	0.26	1.13	0.26	0.15
P-35-25	S-35-33c	26.0					
	S-35-34						
P-35-26	S-35-35	13.0	56.0	0.13	0.56	0.13	0.08
P-35-27	S-35-36	13.0	56.0	0.40	0.50	0.40	0.00
P-33-27	S-35-39	15.0	30.0	0.13	0.56	0.13	0.08
P-35-28	S-35-37	13.0	56.0	0.13	0.56	0.13	0.08
P-33-26	S-35-38	15.0	36.0	0.15	0.56	0.15	0.08
	S-35-23						
D 25 20	S-35-24	20 O	86.0	0.20	0.86	0.20	0.12
P-35-29	S-35-25	S-35-25 20.0	۵۵.0	0.20		0.20	0.12
	S-35-26						

<sup>&</sup>lt;sup>a</sup> Calculated assuming 99% control efficiency.

<sup>&</sup>lt;sup>b</sup> Calculated assuming a maximum of 8,760 hours of operation per year.

Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume

d Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>e</sup> Assumed to equal the allowable emission limit.

f Calculated using allowable emission rate at historical production levels.

Emission	Associated	Pote	ntial	Allov	vable	Expected	
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
	S-41-01						
P-41-01	S-41-02	138	604	1.371	6.04	1.38	2.27
P-41-01	S-41-03	138	004	1.3/1	6.04	1.38	2.27
	S-34-04						
P-41-02	S-41-04	822	360	8.239	36.0	8.22	13.5
	S-41-05						
	S-41-06		150		1.50	0.34	0.56
P-41-03	S-41-07	34.0		0.343			
	S-41-08						
	S-41-09						
	S-41-09		1.50	0.343	1.50	0.34	0.56
P-41-04	S-41-10	34.0					
P-41-04	S-41-11	54.0	150	0.545			
	S-41-12						
	S-41-13						2.27
P-41-05	S-41-14	138	604	1.371	6.04	1.38	
	S-41-15						
P-41-06	S-41-16	822	360	8.239	36.0	8.22	13.5

<sup>&</sup>lt;sup>a</sup> Calculated assuming 99% control efficiency.

b Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>c</sup> Calculated using applicable Anti-PSD limits

d Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>e</sup> Assumed to equal the allowable emission limit.

f Calculated using allowable emission rate at historical production levels.

Emission	Associated	Pote	ntial	Allov	vable	Expected	
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
P-51-01	S-51-01	86.0	375	0.86	3.75	0.86	0.71
P-51-02	2-21-01	86.0	375	0.86	3.75	0.86	0.71
P-51-03	S-51-02	86.0	375	0.86	3.75	0.86	0.71
P-51-04	S-51-03	22.0	98.0	0.22	0.98	0.22	0.06
P-51-05	S-51-04	22.0	98.0	0.22	0.98	0.22	0.06
P-51-06	S-51-05	22.0	98.0	0.22	0.98	0.22	0.06
P-51-07	S-51-07	13.0	56.0	0.13	0.56	0.13	0.005
	S-51-08						
	S-51-09						
P-51-08	S-51-10	60.0	263	0.60	2.63	0.60	0.05
	S-51-11						
	S-51-12						
P-51-09	S-51-12	51.0	225	0.51	2.25	0.51	0.04
P-51-10	S-51-13	51.0	225	0.51	2.25	0.51	0.04
	S-51-08						
	S-51-13						
P-51-11	S-51-14	60.0	263	0.60	2.63	0.60	0.05
	S-51-15						
	S-51-16						
P-51-12	S-51-06	43.0	188	0.43	1.88	0.43	0.04

- <sup>a</sup> Calculated assuming 99% control efficiency.
- b Calculated assuming a maximum of 8,760 hours of operation per year.
- <sup>c</sup> Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume
- d Calculated assuming a maximum of 8,760 hours of operation per year.
- <sup>e</sup> Assumed to equal the allowable emission limit.
- f Calculated using allowable emission rate at historical production levels.

Emission	Associated	Potential		Allowable		Expected	
Point[s]	Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>
P-53-01	S-53-01	129	563	1.29	5.63	1.29	0.13
P-53-02	C F2 O2	120	F.C.2	1 20	F 62	1 20	4 22
P-53-03	S-53-02	129	563	1.29	5.63	1.29	1.33
P-53-04	S-53-03	129	563	1.29	5.63	1.29	1.33
P-53-05	S-53-04	34.0	150	0.34	1.50	0.34	0.04
P-53-06	S-53-05	34.0	150	0.34	1.50	0.34	0.04
P-53-07	S-53-06	34.0	150	0.34	1.50	0.34	0.09
P-53-08	S-53-07	34.0	150	0.34	1.50	0.34	0.09
P-53-09	S-53-08	34.0	150	0.34	1.50	0.34	0.09

<sup>&</sup>lt;sup>a</sup> Calculated assuming 99% control efficiency.

b Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>c</sup> Calculated using BACT limit of 0.01 gr/dscf at rated baghouse volume

d Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>e</sup> Assumed to equal the allowable emission limit.

f Calculated using allowable emission rate at historical production levels.

Emission	Associated	ociated Pote		ntial Allow		Ехре	Expected	
Point[s]	Point[s] Source[s]	[lb/hr] <sup>a</sup>	[TPY] <sup>b</sup>	[lb/hr] <sup>c</sup>	[TPY] <sup>d</sup>	[lb/hr] <sup>e</sup>	[TPY] <sup>f</sup>	
P-95-01	S-95-01	34.0	150	0.34	1.50	0.34	0.44	
P-95-01	S-95-02	34.0	150	0.34	1.30	0.34	0.44	
P-95-02	S-95-03	184	806	18.4	80.6	18.4	23.7	
P-95-03	S-95-04	5.00	24.0	0.05	0.24	0.05	0.11	
P-95-04	S-95-05	3.00	12.0	0.03	0.12	0.03	0.05	
P-95-05	S-95-06	3.00	12.0	0.03	0.12	0.03	0.05	
P-95-06	S-95-07	3.00	12.0	0.03	0.12	0.03	0.05	

<sup>&</sup>lt;sup>a</sup> Calculated assuming 99% control efficiency.

b Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>c</sup> Calculated using applicable BACT or NSPS limit

d Calculated assuming a maximum of 8,760 hours of operation per year.

<sup>&</sup>lt;sup>e</sup> Assumed to equal the allowable emission limit.

<sup>&</sup>lt;sup>t</sup> Calculated using allowable emission rate at historical production levels.

# **State Regulations**

Alabama state regulations of potential relevance are found in ADEM Administrative Code r. 335-3, "Air Pollution Control Program". Potentially applicable requirements for individual emissions sources are examined and an explanation of applicability or inapplicability is provided in the following sections.

# **Federal Regulations**

Federal air quality control regulation of potential relevance for Title V purposes are found in Title 40 of the Code of Federal Regulations [CFR], Chapter I, Subchapter C, "Air Programs". Potentially applicable requirements for individual emissions sources are examined and an explanation of applicability or inapplicability is provided in the following sections. These programs include the following:

**40 CFR 60** New Source Performance Standards [NSPS]

**40 CFR 63** National Emissions Standards for Hazardous Air Pollutants [NESHAP]

**40 CFR 64** Compliance Assurance Monitoring [CAM]

# ADEM Administrative Code r. 335-3: Air Pollution Control Program

Potentially applicable requirements under ADEM Administrative Code r. 335-3 are discussed in the following sections. Relevant regulations are as follows:

**335-3-4**: "Control of Particulate Emissions"

**335-3-5**: "Control of Sulfur Compound Emissions"

**335-3-8:** "Control of Nitrogen Oxides Emissions"

**335-3-14**: "Air Permits"

**335-3-16:** "Major Source Operating Permits"

The following section contains a discussion of applicability with respect to ADEM Administrative Code 335-3-4, "Control of Particulate Emissions". Citations are taken from the most recent revisions which were published on January 18, 2011.

#### 335-3-4-.01: "Visible Emissions"

Any source of emissions not subject to a more stringent opacity standard, such as those contained in 40 CFR 60, Subpart F, Y, or OOO, or 40 CFR 63, Subpart LLL, are subject to ADEM Administrative Code r. 335-3-4-.01[1][a] and [b], which state the following:

Except as provided in subparagraphs [b], [c], [d], or [e] of this paragraph, and paragraph [3] of this rule, no person shall discharge into the atmosphere from any source of emission, particulate of an opacity greater than that designated as twenty percent [20%] opacity, as determined by a six [6] minute average.

For a person not covered by paragraphs [3], [4], [5], and [6] of this rule, during one six [6] minute period in any sixty [60] minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent [40%] opacity.

#### 335-3-4-.02: "Fugitive Emissions"

Any source of fugitive emissions located at this facility is required to comply with the requirements of ADEM Administrative Code r. 335-3-4-.02[1][a] through [c] and [3], which state the following:

No person shall cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stock piles, and other surfaces which create airborne dust problems;

Installation and use of hoods, fans, and fabric filters [or other suitable control devices] to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any rule or regulation, the Director may order that the building or equipment in which processing, handling, and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.

### 335-3-4-.03: "Fuel Burning Equipment"

According to ADEM Administrative Code r. 335-3-1-.02[1][ee], *fuel burning equipment* is defined as any equipment, device, or contrivance and all appurtenances thereto, including ducts, breechings, fuel-feeding equipment, ash removal equipment, combustion controls, stacks, and chimney, used primarily, but not exclusively, to burn any fuel for the purpose of indirect heating in which the material being heated is not contacted by and adds no substance to the products of combustion.

Thus, any equipment defined as fuel burning equipment are subject to ADEM Administrative Code r. 335-3-4-.03[1] and [2], which state the following:

Class 1 Counties: No person shall cause or permit the emission of particulate matter from fuel-burning equipment in a Class 1 County in excess of the amount shown in Table 4-1 for the heat input allocated to such source. For sources in Class 1 Counties, interpolation of the data in Table 4-1 for heat input values between 10 million BTU/hr and 250 million BTU/hr shall be accomplished by the use of the equation:

# $E = 1.58H^{-0.44}$

Where: **E** = lb/million BTU; **H** = heat input in million BTU/hr

Class 2 Counties: No person shall cause or permit the emission of particulate matter from fuel-burning equipment in a Class 2 County in excess of the amount shown in Table 4-1 for the heat input allocated to such source. For sources in Class 2 Counties, interpolation of the data in Table 4-1 for heat input values between 10 million BTU/hr and 250 million BTU/hr shall be accomplished by the use of the equation:

# $E = 3.109 H^{-0.589}$

Where: **E** = lb/million BTU; **H** = heat input in million BTU/hr

# 335-3-4-.04: "Process Industries, General"

Emissions from any affected source shall not exceed that which is determined by ADEM Administrative Code r. 335-3-4-.04[1] and [2], which state the following:

Class 1 Counties: No person shall cause or permit the emission of particulate matter in any one hour from any source in a Class 1 County in excess of the amount shown in Table 4-2 for the process weight per hour allocated to such source. For sources in Class 1 Counties, interpolation of the data in Table 4-2 for the process weight per hour values up to 60,000 lbs/hr shall be accomplished by use of the equation:

 $E = 3.59P^{0.62}$ 

For: P <30 tons/hr

And interpolation and extrapolation of the data for process weight per hour values equal to or in excess of 60,000 lbs/hr shall be accomplished by use of the equation:

 $E = 17.31P^{0.16}$ For:  $P \ge 30 \text{ tons/hr}$ 

Where: **E** = lb/hr **P** = Process weight in TPH.

# 335-3-4-.11: "Cement Plants"

The kiln system and clinker cooler, which are located in Mobile county, are subject to ADEM Administrative Code r. 335-3-4-.11[1][a], [1][b], [1][c], and [3][a], and which state the following:

This rule applies to existing cement plants that have a process weight that is greater than 88.7 tons per hour; all existing cement plants in the primary non-attainment area for suspended particulates in Mobile County [Appendix D]; and new cement plants.

No owner or operator shall cause, permit, or allow the emission of particulate matter from the kiln which is in excess of 0.30 pounds per ton of feed to the kiln, maximum two [2] hour average.

The following section contains a discussion of applicability with respect to ADEM Administrative Code 335-3-5, "Control of Sulfur Compound Emissions". Citations are taken from the most recent revisions which were published on January 18, 2011.

#### 335-3-5-.01: "Fuel Combustion"

According to ADEM Administrative Code r. 335-3-1-.02[1][ee], *fuel burning equipment* is defined as any equipment, device, or contrivance and all appurtenances thereto, including ducts, breechings, fuel-feeding equipment, ash removal equipment, combustion controls, stacks, and chimney, used primarily, but not exclusively, to burn any fuel for the purpose of indirect heating in which the material being heated is not contacted by and adds no substance to the products of combustion.

According to Appendix B of ADEM Administrative Code r. 335-3, St. Mobile County is considered to be a Category I County. Thus, in accordance with Administrative Code r. 335-3-5-.01[1][a], allowable sulfur dioxide emissions from any fuel burning equipment located in a Category II County shall be determined as follows:

No person shall cause or permit the operation of a fuel burning installation in a Sulfur Dioxide Category I County or in Jefferson County in such a manner that sulfur oxides, measured as sulfur dioxide, are mitted in excess of 1.8 pounds per million BTU heat input.

The following section contains a discussion of applicability with respect to ADEM Administrative Code 335-3-8, "Control of Nitrogen Oxide Emissions". Citations are taken from the most recent revisions which were published on January 18, 2011.

#### 335-3-8-.01: "Portland Cement Kilns"

In accordance with ADEM Administrative Code r. 335-3-8-.01[1], which states the following, Portland Cement kilns located in Mobile County would not be subject to this requirement:

The requirements of this rule apply only to Portland cement kilns in the Counties of Autauga, Bibb, Blount, Calhoun, Chambers, Cherokee, Chilton, Clay, Cleburne, Colbert, Coosa, Cullman, Dallas, DeKalb, Elmore, Etowah, Fayette, Franklin, Greene, Hale, Jackson, Jefferson, Lamar, Lauderdale, Lawrence, Lee, Limestone, Macon, Madison, Marion, Marshall, Morgan, Perry, Pickens, Randolph, Russell, Shelby, St. Clair, Sumter, Talladega, Tallapoosa, Tuscaloosa, Walker, and Winston with process rates of at least the following...

The following section contains a discussion of applicability with respect to ADEM Administrative Code 335-3-14, "Air Permits". Citations are taken from the most recent revisions which were published on January 18, 2011.

# 335-3-14-.04: "Air Permits Authorizing Construction in Clean Air Areas"

The following sources are subject to federally enforceable Anti-PSD emissions limits. These limits were requested by the facility to prevent sources from becoming subject to the applicable provisions of ADEM Administrative Code r. 335-3-14-.04, *Prevention of Significant Deterioration*:

Emission Point	Source[s] Controlled	Pollutant	Limit
	S-29-01	СО	17,637 TPY
D 20 04	S-29-01 S-29-02	NO <sub>x</sub>	2,998 TPY
P-29-01	S-29-03	SO <sub>2</sub>	118 TPY
	S-29-04	VOC	2,116 TPY
	S-41-01		
P-41-01	S-41-02	PM	1.371 lb/hr; 0.01 gr/dscf
	S-41-03		0.01 gi/usci
P-41-02	S-41-04	PM	8.239 lb/hr; 0.009 gr/dscf
	S-41-05		
	S-41-06		
P-41-03	S-41-07	PM	0.343 lb/hr; 0.01 gr/dscf
	S-41-08		0.01 817 0301
	S-41-09		
	S-41-09		
D 44 04	S-41-10	DNA	0.343 lb/hr;
P-41-04	S-41-11	PM	0.01 gr/dscf
	S-41-12		
	S-41-13		
P-41-05	S-41-14	PM	1.371 lb/hr; 0.01 gr/dscf
	S-41-15		0.01 81/ 0301
P-41-06	S-41-16	PM	8.239 lb/hr; 0.009 gr/dscf

The following sources are subject to federally enforceable BACT emissions limits, which were developed in order to comply with the applicable provisions of ADEM Administrative Code r. 335-3-14-.04, *Prevention of Significant Deterioration*:

Emission Point Source[s] Controlled		Pollutant	Limit	
	S-19-03			
	S-19-04			
P-19-01	S-19-06	PM	0.01 gr/dscf	
	S-19-07			
	S-19-09			
P-19-02	S-19-08	PM	0.01/-	
P-19-02	S-19-10	PIVI	0.01 gr/dscf	
	S-19-11			
	S-19-12			
P-19-03	S-19-13	PM	0.01 gr/dscf	
	S-19-14			
	S-19-15			
	S-24-13			
P-24-01	S-24-14	PM	0.01 gr/dscf	
	S-24-15			
P-24-02	S-24-22	PM	0.01 gr/dscf	
P-24-03 S-24-23		PM	0.01 gr/dscf	
P-24-04	S-24-24	PM	0.01 gr/dscf	
	S-24-31			
	S-24-32			
P-24-05	S-24-33	PM	0.01 ar/deaf	
P-24-05	S-24-34	PIVI	0.01 gr/dscf	
	S-24-35			
	S-24-36			
D 26 01	S-26-01	DN4	0.01/do-f	
P-26-01	S-26-07	PM	0.01 gr/dscf	
	S-26-02			
	S-26-03			
P-26-02	S-26-04	PM	0.01 gr/dscf	
	S-26-05			
	S-26-06			

Emission Point	Source[s] Controlled	Pollutant	Limit	
P-26-03	S-26-08	PM	0.01 gr/dscf	
P-20-03	S-26-14	PIVI	0.01 gi/usci	
	S-26-09			
	S-26-10			
P-26-04	S-26-11	PM	0.01 gr/dscf	
	S-26-12			
	S-26-13			
	S-26-16			
	S-26-17			
P-26-05	S-26-18	PM	0.01 gr/dscf	
1 20 03	S-26-19	1 101	0.01 81/ 0301	
	S-26-21			
	S-26-22			
	S-26-16			
P-26-06	S-26-17	PM	0.01 gr/dscf	
1-20-00	S-26-18	FIVI		
	S-26-19			
	S-26-16		0.01 gr/dscf	
P-26-07	S-26-17	PM		
F-20-07	S-26-18	FIVI		
	S-26-19			
P-26-08	S-26-28	PM	0.01 gr/dscf	
P-26-09	S-26-30	PM	0.01 gr/dscf	
	S-26-31			
P-26-10	S-26-32	PM	0.01 gr/dscf	
1 20 10	S-26-33	1 101		
	S-26-34			
	S-26-31		0.01 gr/dscf	
P-26-12	S-26-32	PM		
1 20-12	S-26-33	r ivi		
	S-26-36			
	S-26-30			
P-26-13	S-26-37a	PM	0.01 gr/dscf	
	S-26-37b			

Emission Point	Source[s] Controlled	Pollutant	Limit
	S-26-38		
P-26-14	S-26-43	PM	0.01 gr/dscf
F-20-14	S-26-44	FIVI	0.01 gi/usci
	S-26-45		
	S-26-39a		
P-26-15	S-26-39b	PM	0.01 gr/dscf
F-20-13	S-26-40	FIVI	0.01 gi/usci
	S-26-41		
P-26-16	S-26-56	PM	0.01 gr/dscf
P-26-17	S-26-42	PM	0.01 gr/dscf
	S-26-47		
	S-26-48		
P-26-18	S-26-49	PM	0.01 gr/dscf
	S-26-50		
	S-26-54		
	S-26-46		0.01 gr/dscf
	S-26-51		
P-26-21	S-26-52	PM	
F-20-21	S-26-53	FIVI	0.01 gi/usci
	S-26-54		
	S-26-55		
	S-26-57		0.01/-
P-26-22	S-26-58	PM	
P-20-22	S-26-59	FIVI	0.01 gr/dscf
	S-26-60		
	S-26-61		
D 26 22	S-26-62	DN 4	0.01 ar/deaf
P-26-23	S-26-63	PM	0.01 gr/dscf
	S-26-64		
	S-26-65		
P-26-24	S-26-66	PM	0.01 gr/doof
Y-20-24	S-26-67	PIVI	0.01 gr/dscf
	S-26-68		

Emission Point	Source[s] Controlled	Pollutant	Limit	
D 26 25	S-26-69	D14	0.01/	
P-26-25	S-26-70	PM	0.01 gr/dscf	
D 26 26	S-26-71	D14	0.04 / 1.5	
P-26-26	S-26-72	PM	0.01 gr/dscf	
P-26-27	S-26-73	PM	0.01 gr/dscf	
P-26-27	S-26-74	PM	0.01 gr/dscf	
P-26-27	S-26-75	PM	0.01 gr/dscf	
P-26-28	S-26-76	PM	0.01 gr/dscf	
	S-28-01			
P-28-01	S-28-02	PM	0.01 gr/dscf	
	S-28-03			
D. 20. 02	S-28-01	50.4	0.04	
P-28-02	S-28-06	PM	0.01 gr/dscf	
P-28-03	S-28-04	PM	0.01 gr/dscf	
	S-28-05	50.4	0.04	
P-28-04	S-28-07	PM	0.01 gr/dscf	
P-28-05	S-28-08	PM	0.01 gr/dscf	
P-28-06	S-28-09	PM	0.01 gr/dscf	
P-28-07	S-28-10	PM	0.01 gr/dscf	
	S-28-11			
	S-28-12			
D 20 00	S-28-13	D1.4		
P-28-08	S-28-14	PM	0.01 gr/dscf	
	S-28-15			
	S-28-16			
	S-28-17			
	S-28-18			
D 20 00	S-28-19	DA 4		
P-28-09	S-28-20	PM	0.01 gr/dscf	
	S-28-21			
	S-28-22			
P-28-10	S-28-23	PM	0.01 gr/dscf	

Emission Point	Source[s] Controlled	Pollutant	Limit	
	S-29-01			
P-29-01	S-29-02	PM	02 0 lb/br	
P-29-01	S-29-03	PIVI	93.0 lb/hr	
	S-29-04			
	S-34-01			
P-34-01	S-34-02	PM		
P-34-01	S-34-03	PIVI	0.01 gr/dscf	
	S-34-04			
D 25 04	S-34-03	DAA	0.01/doof	
P-35-01	S-35-01	PM	0.01 gr/dscf	
D 25 02	S-34-04	DAA	0.01/deef	
P-35-02	S-35-01	PM	0.01 gr/dscf	
P-35-03	S-35-02	PM	0.01 gr/dscf	
D 25 04	S-35-03	DAA	0.01/doof	
P-35-04	S-35-04	PM	0.01 gr/dscf	
P-35-05	S-35-04	PM	0.01 gr/dscf	
D 3E 06	S-35-05	PM	0.01 ==/d==f	
P-35-06	S-35-06	PIVI	0.01 gr/dscf	
P-35-07	S-35-05	PM	0.01 gr/dscf	
	S-35-07		0.01 gr/dscf	
P-35-08	S-35-08	PM		
	S-35-09			
P-35-09	S-35-10	PM	0.01 gr/dscf	
P-35-10	S-35-11	PM	0.01 gr/dscf	
D 2F 11	S-35-12	DAA	0.01 av/doof	
P-35-11	S-35-16	PM	0.01 gr/dscf	
P-35-12	S-35-13	PM	0.01 gr/dscf	
P-35-13	S-35-14	PM	0.01 gr/dscf	
P-35-14 S-35-15		PM	0.01 gr/dscf	
P-35-15	S-35-17	PM	0.01 gr/dscf	
D 2F 4C	S-35-18	DA 4	0.01 ==/-1=-	
P-35-16	S-35-19	PM	0.01 gr/dscf	
P-35-18	S-35-20	PM	0.01 gr/dscf	

Emission Point	Source[s] Controlled	Pollutant	Limit	
P-35-19	S-35-21	PM	0.01 gr/dccf	
b-22-13	S-35-22	PIVI	0.01 gr/dscf	
P-35-20	S-35-27	PM	0.01 gr/dccf	
P-35-20	S-35-28	PIVI	0.01 gr/dscf	
P-35-21	S-35-29	PM	0.01 gr/dscf	
P-35-22	S-35-30	PM	0.01 gr/dscf	
P-35-24	S-35-32	PM	0.01 gr/dscf	
	S-35-33a			
D 25 25	S-35-33b	DNA	0.01 ==/d==f	
P-35-25	S-35-33c	PM	0.01 gr/dscf	
	S-35-34			
P-35-26	S-35-35	PM	0.01 gr/dscf	
D 25 27	S-35-36	D1.4	0.01/	
P-35-27	S-35-39	PM	0.01 gr/dscf	
D 25 20	S-35-37	D. A.	0.04/.	
P-35-28	S-35-38	PM	0.01 gr/dscf	
	S-35-23		0.01 gr/dscf	
D 25 20	S-35-24	PM		
P-35-29	S-35-25			
	S-35-26			
P-51-01	S-51-01	PM	0.01 gr/dscf	
P-51-02	S-51-01	PM	0.01 gr/dscf	
P-51-03	S-51-02	PM	0.01 gr/dscf	
P-51-04	S-51-03	PM	0.01 gr/dscf	
P-51-05	S-51-04	PM	0.01 gr/dscf	
P-51-06	S-51-05	PM	0.01 gr/dscf	
P-51-07	S-51-07	PM	0.01 gr/dscf	
	S-51-08			
	S-51-09			
P-51-08	S-51-10	PM	0.01 gr/dscf	
	S-51-11			
	S-51-12			
P-51-09	S-51-12	PM	0.01 gr/dscf	
P-51-10	S-51-13	PM	0.01 gr/dscf	

Emission Point	nission Point Source[s] Controlled		Limit	
	S-51-08			
	S-51-13			
P-51-11a	S-51-14	PM	0.01 gr/dscf	
	S-51-15		0.01 817 0.001	
	S-51-16			
P-51-11b	S-51-08	PM	0.01 gr/dscf	
h-21-110	S-51-16	PIVI	0.01 gr/dsci	
P-51-12	S-51-06	PM	0.01 gr/dscf	
P-53-01	S-53-01	PM	0.01 gr/dscf	
P-53-02	S-53-02	PM	0.01 gr/dscf	
P-53-03	S-53-02	PM	0.01 gr/dscf	
P-53-04	S-53-03	PM	0.01 gr/dscf	
P-53-05	S-53-04	PM	0.01 gr/dscf	
P-53-06	S-53-05	PM	0.01 gr/dscf	
P-53-07	S-53-06	PM	0.01 gr/dscf	
P-53-08	S-53-07	PM	0.01 gr/dscf	
P-53-09	S-53-08	PM	0.01 gr/dscf	
P-95-01	S-95-01	DA 4	0.01 ar/deaf	
F-92-01	S-95-02	PM	0.01 gr/dscf	
P-95-02	C OF 03	PM	21.1 lb/hr	
P-95-02	S-95-03	SO <sub>2</sub>	29.0 lb/ hr <sup>a</sup>	
P-95-03	S-95-04	PM	0.01 gr/dscf	
P-95-04	S-95-05	PM	0.01 gr/dscf	
P-95-05	S-95-06	PM	0.01 gr/dscf	
P-95-06	S-95-07	PM	0.01 gr/dscf	

<sup>&</sup>lt;sup>a</sup> 0.7% sulfur content (by weight) of No. 2 Fuel Oil @ max rated heat input of 40.0 MMBtu/hr

The following section contains a discussion of applicability with respect to ADEM Administrative Code 335-3-16, "Major Source Operating Permits". Citations are taken from the most recent revisions which were published on January 18, 2011.

#### 335-3-16-.03: "Applicability"

Per ADEM Administrative Code r. 335-3-16-.03[1][a] through [c], this facility is considered to be a major source.

# 335-3-16-.04: "Permit Application Requirements"

This application for renewal, which was received on April 14, 2010, satisfies the application requirements outlined in ADEM Administrative Code r. 335-3-16-.04.

# 335-3-16-.05: "Permit Content"

The corresponding MSOP contains all applicable emissions limitations and standards and operational requirements and limitations necessary to assure compliance with all applicable requirements at the time of permit issuance in accordance with ADEM Administrative Code r. 335-3-16-.05[a][1] and [2], "Applicable Limitations and Standards".

The duration of this renewal permit shall be five [5] years, as required by ADEM Administrative Code r. 335-3-16-.05[b][1], "Duration of Operating Permits".

The corresponding MSOP contains all emissions monitoring and analysis procedures or test methods, periodic monitoring, recordkeeping, and reporting requirements outlined in ADEM Administrative Code r. 335-3-16-.05[c][1], [c][2], and [c][3], "Monitoring and Recordkeeping Requirements".

#### 335-3-16-.07: "Compliance Requirements"

The corresponding MSOP contains compliance requirements in accordance with ADEM Administrative Code r. 335-3-16-.07[a] through [f].

#### 335-3-16-.12: "Permit Issuance"

Major Source Operating Permit [MSOP] No. 503-8026 was initially issued on October 25, 2000, in accordance with 335-3-16-.12[1], "Initial".

The first renewal of MSOP No. 503-8026 was initially issued on December 4, 2006, in accordance with 335-3-16-.12[2], "Renewal".

#### 335-3-16-.13: "Permit Modifications or Amendments"

Modifications to the existing MSOP were performed on February 5, 2002, and August 31, 2009, in accordance with these requirements.

# 40 CFR 60: Standards of Performance for New Stationary Sources [NSPS]

Potentially applicable requirements under Part 60 of Title 40 of the Code of Federal Regulations [CFR] are discussed in the following sections. Relevant regulations are as follows:

Subpart	Reference	Source Category
F	§60.60	Portland Cement Plants
Y	§60.250	Coal Preparation Plants
000	§60.670	Nonmetallic Mineral Processing Plants
cccc	§60.2000	Commercial and Industrial Solid Waste Incineration Units

The following section contains a discussion of applicability with respect to 40 CFR 60, Subpart F, "Standards of Performance for Portland Cement Plants". Citations are taken from the most recent amendments to Subpart F, which were published in the federal register on September 9, 2010 [75 FR 55064].

# §60.60: "Applicability and designation of affected facility"

The following sources are designated as affected facilities under Subpart F:

- [a] The provisions of this subpart are applicable to the following affected facilities in Portland cement plants: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.
- [b] Any facility under paragraph [a] of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

Thus, in accordance with §60.60, all sources located within this facility are subject to Subpart F.

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The following section contains a discussion of applicability with respect to 40 CFR 60, Subpart Y, "Standards of Performance for Coal Preparation and Processing Plants". Citations are taken from the most recent amendments, which were published in the federal register [74 FR 51977] on October 8, 2009.

# §60.250: "Applicability and designation of affected facility"

The following sources are designated as affected facilities under Subpart Y:

- [a] The provisions of this subpart apply to affected facilities in coal preparation and processing plants that process more than 181 megagrams [Mq] [200 tons] of coal per day.
- [b] The provisions in §60.251, §60.252[a], §60.253[a], §60.254[a], §60.255[a], and §60.256[a] of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after October 27, 1974, and on or before April 28, 2008: Thermal dryers, pneumatic coal-cleaning equipment [air tables], coal processing and conveying equipment [including breakers and crushers], and coal storage systems, transfer and loading systems.
- [c] The provisions in §60.251, §60.252[b][1] and [c], §60.253[b], §60.254[b], §60.255[b] through [h], §60.256[b] and [c], §60.257, and §60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after April 28, 2008, and on or before May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment [air tables], coal processing and conveying equipment [including breakers and crushers], and coal storage systems, transfer and loading systems.
- [d] The provisions in §60.251, §60.252[b][1] through [3], and [c], §60.253[b], §60.254[b] and [c], §60.255[b] through [h], §60.256[b] and [c], §60.257, and §60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment [air tables], coal processing and conveying equipment [including breakers and crushers], coal storage systems, transfer and loading systems, and open storage piles.

# §60.251: "Definitions"

Coal preparation and processing plants are defined as follows:

...any facility [excluding underground mining operations] which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.

*Coal processing and conveying equipment* is defined as follows:

...any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes,

but is not limited to, breakers, crushers, screens, and conveyor belts. Equipment located at the mine face is not considered to be part of the coal preparation and processing plant.

Thus, in accordance with §60.250 and §60.251, the following sources, located in Area 95, are considered affected sources with respect to Subpart Y:

Source ID	Source Description	Emission Point ID
S-95-01	Drop Point: Belt Conveyor to Coal Silo	P-95-01
S-95-02	Coal Silo Agitator	P-95-01
S-95-03	Pulverized Coal Mill	P-95-02
S-95-04	Pulverized Coal Bin	P-95-03
S-95-05	Coal FK Pump	P-95-04
S-95-06	Coal FK Pump	P-95-05
S-95-07	Coal FK Pump	P-95-06

The following section contains a discussion of applicability with respect to 40 CFR 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" for this facility. Citations are taken from the most recent revisions, which were published in the federal register on April 28, 2009 [74 FR 19309].

### §60.670: "Applicability and designation of affected facility"

The following sources are designated as affected facilities under Subpart OOO:

[a][1]: Except as provided in paragraphs [a][2], [b], [c], and [d] of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station....

[b]: An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

[e]: An affected facility under paragraph [a] of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.

[f]: Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

# §60.671: "Definitions"

*Nonmetallic mineral processing plant* is defined as follows:

...any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 [b] and [c].

Nonmetallic mineral is defined as follows:

...any of the following minerals or any mixture of which the majority is any of the following minerals Crushed and Broken Stone, including Limestone, ....

Since the Holcim facility does not crush or grind any nonmetallic minerals on-site, it would not be considered a nonmetallic mineral processing facility as defined in §60.671. Thus, no sources located at this facility would be subject to Subpart OOO.

# Subpart CCCC: "Commercial and Industrial Solid Waste Incineration Units"

The following quotation was obtained from the EPA website\* concerning this rule:

The EPA Administrator, Lisa P. Jackson, signed the following final rule on 02/21/2011, and EPA is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, the which appear Government Printing Office's on (http://fdsys.gpo.gov/fdsys/search/home.action) and on Regulations.gov (http://www.regulations.gov) in Docket No. EPA-HQ-OAR-2003-0119. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

Until the published official version of this rule becomes available, applicability with respect to this facility cannot be accurately assessed.

<sup>\*</sup> http://www.epa.gov/airquality/combustion/docs/20110221ciswi.pdf

# 40 CFR 63: National Emissions Standards for Hazardous Pollutants [NESHAP]

Potentially applicable requirements under Part 63 of Title 40 of the Code of Federal Regulations [CFR] are discussed in the following sections. Relevant regulations are as follows:

Subpart	Reference	Source Category
LLL	§63.1340	Portland Cement Manufacturing Industry

The following section contains a discussion of applicability with respect to 40 CFR 63, Subpart LLL, "National Emissions Standards for Hazardous Air Pollutants: Portland Cement Manufacturing Industry". Citations are taken from the most recent amendments, which were published in the federal register [75 FR 55064] on September 9, 2010.

# §63.1340: "Applicability and designation of affected sources"

In accordance with 63.1340[a], [b][1] through [b][6], and [c], the following sources are designated as affected facilities under Subpart LLL:

The provisions of this subpart apply to each new and existing Portland cement plant which is a major source or an area source as defined in §63.2.

The affected sources subject to this subpart are:

Each kiln including alkali bypasses, except for kilns that burn hazardous waste and are subject to and regulated under subpart EEE of this part; Each clinker cooler at any Portland cement plant; Each raw mill at any Portland cement plant; Each finish mill at any Portland cement plant; Each raw material dryer at any Portland cement plant; Each raw material, clinker, or finished product storage bin at any Portland cement plant; Each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln at any Portland cement plant; Each bagging and bulk loading and unloading system at any Portland cement plant; and Each open clinker pile at any Portland cement plant.

Crushers are not covered by this subpart regardless of their location.

# §63.1356: "Sources with multiple emission limits or monitoring requirements"

Prior to the September 9, 2010, promulgation of amendments to this subpart, §63.1356 exempted any affected source subject to the provisions of Subpart LLL from any standard contained within 40 CFR 60, Subpart OOO. According to the published amendment, this exemption has been removed. Section §63.1356, "Sources with multiple emission limits or monitoring requirements", now states the following:

If an affected facility subject to this subpart has a different emission limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emission limit or requirement and is exempt from the less stringent requirement.

Thus, with the exception of crushers, each source located within this facility is subject to the applicable requirements of Subpart LLL.

The following section contains a discussion of applicability with respect to 40 CFR 64, "Compliance Assurance Monitoring". Citations are taken from the most recent version of the rule, which was published in the federal register [62 FR 54940] on October 22, 1997.

#### §64.2: "Applicability"

The following sources are subject to the applicable requirements of this subpart:

[a] General applicability. Except for backup utility units that are exempt under paragraph [b][2] of this section, the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria: [1] The unit is subject to an emission limitation or standard for the applicable regulated air pollutant [or a surrogate thereof], other than an emission limitation or standard that is exempt under paragraph [b][1] of this section; [2] The unit uses a control device to achieve compliance with any such emission limitation or standard; and [3] The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, "potential pre-control device emissions" shall have the same meaning as "potential to emit," as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

# §64.4: "Submittal Requirements"

The following may be considered presumptively acceptable or required monitoring approaches:

[b][1] Presumptively acceptable or required monitoring approaches, established by the permitting authority in a rule that constitutes part of the applicable implementation plan required pursuant to title I of the Act, that are designed to achieve compliance with this part for particular pollutant-specific emissions units; [2] Continuous emission, opacity or predictive emission monitoring systems that satisfy applicable monitoring requirements and performance specifications as specified in §64.3[d]; [3] Excepted or alternative monitoring methods allowed or approved pursuant to part 75 of this chapter; [4] Monitoring included for standards exempt from this part pursuant to §64.2[b][1][i] or [vi] to the extent such monitoring is applicable to the performance of the control device [and associated capture system] for the pollutant-specific emissions unit; and [5] Presumptively acceptable monitoring identified in guidance by EPA. Such guidance will address the requirements under §§64.4[a], [b], and [c] to the extent practicable

All of the existing pollutant specific emissions control devices located at the facility are subject to the requirements of this subpart. However, since each source contained within this permit is subject to post-November 15, 1990, federal standard, monitoring requirements applicable to each source meets the requirements of "presumptively acceptable monitoring".